

-39. A drive apparatus for a hybrid vehicle comprising:

a motor including a stator and a rotor;

an automatic transmission having a fluid transmitting apparatus with an input member for receiving driving force output from said motor; and

wherein said motor is arranged radially and axially overlapping said fluid transmitting apparatus, with a predetermined gap between said rotor and said fluid transmitting apparatus.

40. A drive apparatus for a hybrid vehicle comprising:

a motor including a stator and a rotor;

an automatic transmission having a fluid transmitting apparatus with an input member for receiving driving force output from an engine and said motor;

a case for receiving said motor; and

wherein said motor is arranged radially and axially overlapping said fluid transmitting apparatus, with a predetermined gap between said rotor and said fluid transmitting apparatus, and wherein said rotor is supported by the output shaft of the engine and an input member of said fluid transmitting apparatus.

41. The drive apparatus for a hybrid vehicle according to claim 40, wherein said rotor includes a hub at a center of rotation thereof, said hub having a shaft portion contacting an output shaft of the engine only in an axially narrow area, thereby being supported by the output shaft for free axial movement relative to the output shaft.

42. The drive apparatus for a hybrid vehicle according to claim 40, wherein said fluid transmitting apparatus has a front cover covering a turbine runner and serving as said input member connected to a pump impeller, and

said front cover includes a radially extending inner portion and an axially extending middle portion and said rotor is arranged on an outer side of and parallel to said middle portion with said predetermined gap therebetween.

43. The drive apparatus for a hybrid vehicle according to claim 42, wherein said fluid transmitting apparatus includes a multi-disc lockup clutch for connecting said input member to said turbine, and

said lockup clutch is arranged radially inward of said middle portion of said front cover.

44. The drive apparatus for a hybrid vehicle according to claim 40, wherein said predetermined gap is within a range between 0.8 and 3.5 mm.

45. A drive apparatus for a hybrid vehicle comprising:

a motor including a stator and a rotor;

an automatic transmission having a fluid transmitting apparatus with an input member for receiving driving force output from an engine and said motor;

a case for receiving said motor;

wherein said motor is arranged radially and axially overlapping said fluid transmitting apparatus, with a predetermined gap between said rotor and said fluid transmitting apparatus, and

wherein said rotor is supported by the output shaft of the engine and an input member of said fluid transmitting apparatus;

wherein said rotor comprises laminated plates and a supporting plate supporting said laminated plates; and

wherein said supporting plate is directly centered by direct radial contact with an output shaft of the engine.

46. A drive apparatus for a hybrid vehicle comprising:

a motor including a stator and a rotor;

an automatic transmission having a fluid transmitting apparatus with an input member for receiving driving force output from an engine and said motor;

a case for receiving said motor; and

wherein said motor is arranged radially and axially overlapping said fluid transmitting apparatus, with a predetermined gap between said rotor and said fluid transmitting apparatus, and

wherein said rotor is fixed to and supported by only the input member of said fluid transmitting apparatus.

47. The drive apparatus for a hybrid vehicle according to claim 46:

wherein said fluid transmitting apparatus has a front cover covering a turbine runner and serving as said input member connected to a pump impeller, said front cover including a center portion, a middle portion extending radially outward from said center portion and an outer portion connected to said center portion, and

wherein said front cover has an axial extension at said center portion, and wherein said rotor has a central hub mounted on said axial extension, thereby centering said rotor.

48. The drive apparatus for a hybrid vehicle according to claim 46, wherein said fluid transmitting apparatus has a front cover covering a turbine runner and serving as said input member connected to a pump impeller, and

said front cover includes a radially extending inner portion and an axially extending middle portion and said rotor is arranged on an outer side of and parallel to said middle portion with said predetermined gap therebetween.

49. The drive apparatus for a hybrid vehicle according to claim 48, wherein said fluid transmitting apparatus includes a multi-disc lockup clutch for connecting said input member to said turbine, and

said lockup clutch is arranged radially inward of said middle portion of said front cover.

50. The drive apparatus for a hybrid vehicle according to claim 46, wherein said predetermined gap is within a range between 0.8 and 3.5 mm.

51. A drive apparatus for a hybrid vehicle comprising:

a motor including a stator and a rotor;

an automatic transmission having a fluid transmitting apparatus with an input member for receiving driving force output from an engine and said motor;

a case for receiving said motor; and

wherein said motor is arranged radially and axially overlapping said fluid transmitting apparatus, with a predetermined gap between said rotor and said fluid transmitting apparatus, and wherein said rotor is fixed to and supported by only an output shaft of the engine.

52. The drive apparatus for a hybrid vehicle according to claim 51, wherein said fluid transmitting apparatus has a front cover covering a turbine runner and serving as said input member connected to a pump impeller, and

cl said front cover includes a radially extending inner portion and an axially extending middle portion and said rotor is arranged on an outer side of and parallel to said middle portion with said predetermined gap therebetween.

53. The drive apparatus for a hybrid vehicle according to claim 52, wherein said fluid transmitting apparatus includes a multi-disc lockup clutch for connecting said input member to said turbine, and

said lockup clutch is arranged radially inward of said middle portion of said front cover.

54. The drive apparatus for a hybrid vehicle according to claim 51, wherein said predetermined gap is within a range between 0.8 and 3.5 mm.

55. A drive apparatus for a hybrid vehicle comprising:  
a motor including a stator and a rotor;

an automatic transmission having a fluid transmitting apparatus with an input member for receiving driving force output from an engine and said motor;

a case for receiving said motor; and

wherein said motor is arranged radially and axially overlapping said fluid transmitting apparatus, with a predetermined gap between said rotor and said fluid transmitting apparatus, and

wherein said rotor is supported by said case and the input member of said fluid transmitting apparatus.

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56. The drive apparatus for a hybrid vehicle according to claim 55, wherein said fluid transmitting apparatus has a front cover covering a turbine runner and serving as said input member connected to a pump impeller, and

said front cover includes a radially extending inner portion and an axially extending middle portion and said rotor is arranged on an outer side of and parallel to said middle portion with said predetermined gap therebetween.

57. The drive apparatus for a hybrid vehicle according to claim 56, wherein said fluid transmitting apparatus includes a multi-disc lockup clutch for connecting said input member to said turbine, and

said lockup clutch is arranged radially inward of said middle portion of said front cover.

58. The drive apparatus for a hybrid vehicle according to claim 55, wherein said predetermined gap is within a range between 0.8 and 3.5 mm.

59. A drive apparatus for a hybrid vehicle comprising:

a motor including a stator and a rotor;

an automatic transmission having a fluid transmitting apparatus with an input member for receiving driving force output from an engine and said motor;

a case for receiving said motor; and

wherein said motor is arranged radially and axially overlapping said fluid transmitting apparatus, with a predetermined gap between said rotor and said fluid transmitting apparatus, and

wherein said rotor is supported by said case and an output shaft of the engine.

60. The drive apparatus for a hybrid vehicle according to claim 59, wherein said fluid transmitting apparatus has a front cover covering a turbine runner and serving as said input member connected to a pump impeller, and

said front cover includes a radially extending inner portion and an axially extending middle portion and said rotor is arranged on an outer side of and parallel to said middle portion with said predetermined gap therebetween.

61. The drive apparatus for a hybrid vehicle according to claim 60, wherein said fluid transmitting apparatus includes a multi-disc lockup clutch for connecting said input member to said turbine, and

said lockup clutch is arranged radially inward of said middle portion of said front cover.